# Wireless Innovation Forum

12 Sept 2013

# What is the Wireless Innovation Forum

**A nonprofit "mutual benefit corporation" dedicated to:**

***"Driving the Future of Radio Communications and Systems World Wide"***

# The Forum IS Its Members…











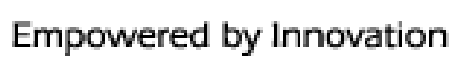








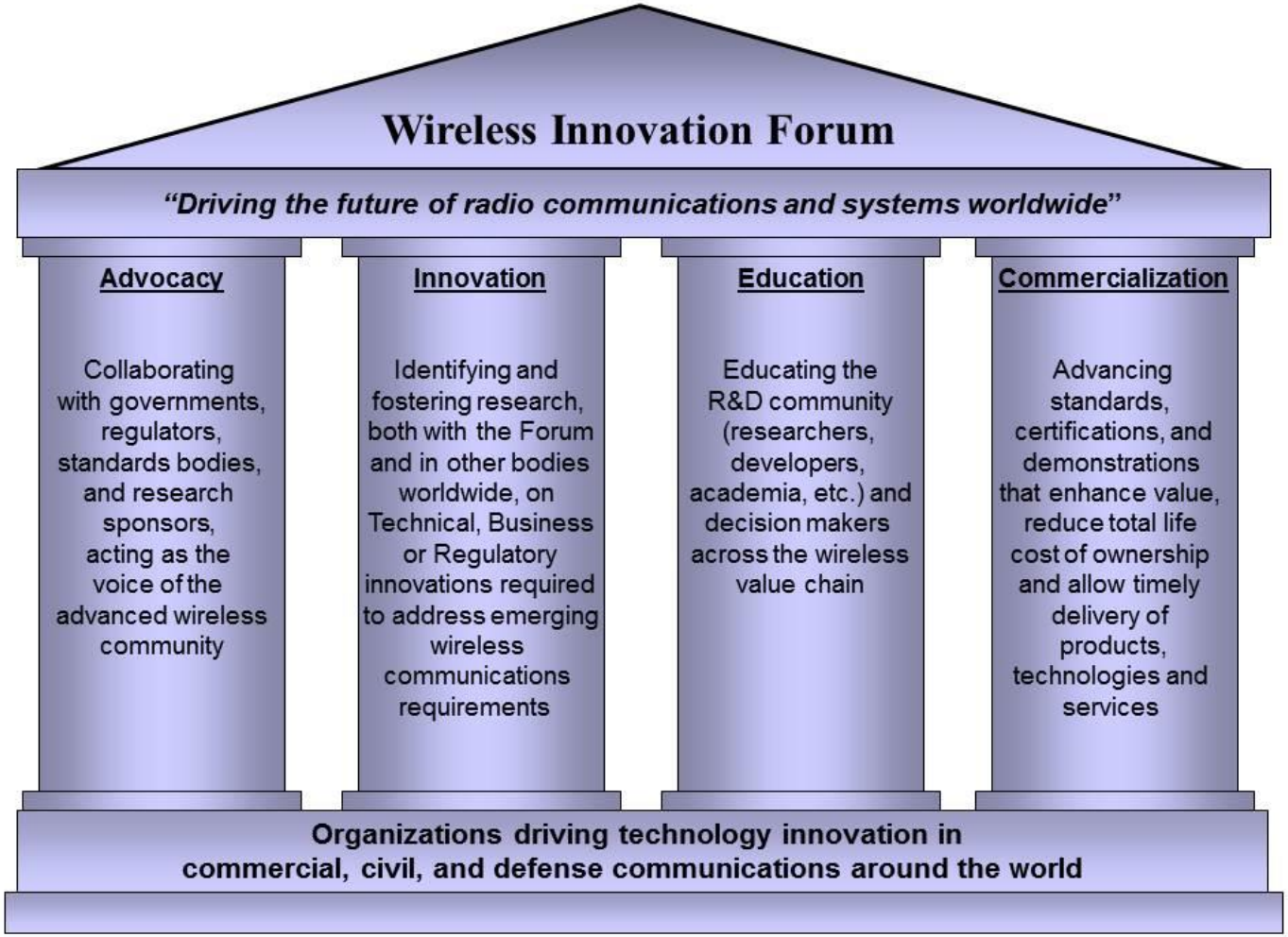






# Pillars of Strategy



# Top 10 Most Wanted Wireless Innovations

- Techniques for Efficient Software Porting Between Heterogeneous Platforms and Generic Development Tools for Heterogeneous Processors
- Certification Process for Third Party Waveform Software
- ***Receiver Specifications***
- ***Low Cost Wide Spectral Range RF Front-End (Multi-octave Contiguous) (Tx,Rx)***
- Techniques to Minimize Power Amplifier Spectral Regrowth in Non-contiguous Spectral Environment
- Increase Communications Time on Battery Charge by an Order of Magnitude
- Means of Coverage Extension - Maintaining Communications in Emergencies and After Disasters
- ***Interference Mitigation Techniques***
- ***Standardized computer interpretable policy language for cognitive radio***
- ***Flexible Regulatory Framework for Temporary, Cooperative and Opportunistic Access***
- ***Contest Aware Cognitive Radio*** (in ballot)

# Perspective on Rx Performance

**A wise definition of receiver performance for spectrum engineering will :**

- Facilitate user access to spectrum
- Increase spectral utilization and efficiency
- Enable flexible spectrum use
- Enable introduction of new technology
- Provide a roadmap for system performance improvement
- Not impose an economic penalty on systems

# Developing a Regulatory Roadmap for Receiver Performance

**To enable future spectrum regulation using receiver performance, a regulatory roadmap enabling multi-use spectrum must be developed.**

**Key characteristics:**

- **Participation from broad spectrum of current and future stakeholders**
- **Light regulatory touch**
- **Enable innovation in future wireless systems**
- **Anticipating natural technical improvements**

# A Path Forward – MSSAC











# MSSAC Charter Decisions to Make

**Membership Criteria**

**Chartering**

- Legal Status
- Funding Model

**Public Meetings**

**Consensus Based**

**Band-by-Band Decision Making**

# Development Workshops

**A set of workshops to:**

- **Charter the MSSAC group**
- **Identify key receiver specifications and reporting**
- **Prioritize primary, secondary and future spectrum opportunities; critical issues with these bands**
- **Recommended spectrum policy roadmap**

# Workshop 1 – Receiver Specifications

- Focus:
  - Evaluation of key receiver specifications
  - Development of a multiuse spectrum roadmap
  - Development of required filings for receiver specifications
  - Development of harm claim threshold targets
- Deliverables:
  - Recommended Receiver reporting forms for both new and legacy receivers
  - Recommended regulatory policies for harm claim thresholds.
  - Recommended roadmap for filing of receiver performance for use in harm claim threshold regulations.
  - Recommended policy for receivers that lack known receiver performance.
  - Recommended compliance policy

# Workshop 2 –Multiple Use Spectrum

- Focus:
  - Identification of multiuse spectrum opportunities
  - Development of requirements for national, regional and local spectrum databases
  - Determine the role of edge node sensors and opportunities for real time use of spectrum
  - Identification of critical spectrum access policies for edge node sensors
- Deliverables:
  - Summary primary, secondary and future multiuse spectrum opportunities
  - Summary of national, regional and local spectrum database requirements
  - Recommended policies for real time access by edge node sensing

# Workshop 3 – Regulatory Roadmap

- Focus:
  - Evaluate timing and deployment of multiuse spectrum tools, databases and policies
  - Evaluate the process for driving to multistakeholder consensus
  - Define the methods to update and maintain the regulatory roadmap
- Deliverables:
  - Recommended Spectrum Policy Roadmap

# Final Deliverables

**The Forum will create interim and final summary report of the findings of these workshops.**

**A final workshop/public meeting could be planned to present findings and deliver results.**